

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (currently amended): A diagnostic method for detecting infection with an avian influenza virus of a specific epidemic strain (HxNy) in a population of birds which has been subjected to vaccination by means of a heterologous vaccine characterized by the same subtype of viral haemagglutinin (Hx) and a different subtype of neuraminidase (Nz) comprising the steps of:

contacting an antigen with a specimen comprising biological fluid from an animal ~~to be tested from said population~~, wherein the antigen comprises or encodes an amino acid sequence of a neuraminidase protein (~~NAy~~) Ny or a fragment thereof; and

determining whether the antigen has any antineuraminidase antibodies bound thereto by means of a positivity detection test,

wherein the specimen comprises biological fluid from an animal which has been subjected to vaccination by means of a heterologous vaccine characterized by the same subtype of viral haemagglutinin ~~HAx~~ Hx and a different subtype of neuraminidase ~~NAz~~ Nz.

Claim 2 (original): A diagnostic method according to Claim 1 wherein the antigen is encoded by a nucleotide sequence derived from the genome of an avian influenza virus with epidemic subtype (HxNy).

Claim 3 (previously presented): A diagnostic method according to Claim 1 wherein the antigen is obtainable by expression in insect cells using a baculovirus vector.

Claim 4 (previously presented): A diagnostic method according to Claim 1 wherein the method is capable of discriminating between infected animals and vaccinated animals.

Claim 5 (cancelled).

Claim 6 (cancelled).

Claim 7 (previously presented): A diagnostic method according to Claim 1 in which said test for the detection of positivity is an immunofluorescence or immunoperoxidase test.

Claim 8 (previously presented): A diagnostic method according to Claim 1 in which said test for the detection of positivity is an ELISA test.

Claim 9 (previously presented): A diagnostic method according to Claim 1 in which said test for the detection of positivity is a color test that is adapted to be carried out on the field by means of an inert support with said antigen adsorbed on.

Claim 10 (previously presented): A process for vaccinating animals against avian influenza virus infection with specific epidemic strain HxNy comprising the steps of:

administering said vaccine to at least one group of animals selected from a population at risk of infection, wherein the vaccine is a heterologous vaccine characterized by the same subtype of viral haemagglutinin HAx and a different subtype of neuraminidase NAz; and

determining whether an animal is infected with the virus using a diagnostic method according to Claim 1.

Claim 11 (original): A vaccination process according to Claim 10, in which said vaccine is a natural vaccine obtained by inactivating a natural virus.

Claim 12 (withdrawn): A diagnostic kit for detecting infection with avian influenza virus with epidemic subtype (HxNy), comprising:

a solid support of an inert material;

an antigen comprising an amino acid sequence of a neuraminidase protein NAY or a fragment thereof in a state that is substantially non modified as compared with that of the specific avian influenza virus strain (HxNy), said antigen being associated onto said solid support; and

a reagent that is adapted to colorimetrically evidence the positivity to infection in the presence of anti-NAY antibodies contained in a biological fluid of an animal.

Claim 13 (withdrawn): A diagnostic kit according to Claim 12 wherein the kit is capable of discriminating between infected animals and vaccinated animals.

Claim 14 (withdrawn): A diagnostic kit according to Claim 12, in which said support is selected from the group consisting of: latex spheres, plastic supports.

Claim 15 (previously presented): A diagnostic method according to Claim 1 wherein the antigen is an antigen comprising an amino acid sequence of a neuraminidase protein (NAy) or a fragment thereof.

Claim 16 (withdrawn): A diagnostic method according to Claim 1 wherein the antigen has at least one genomic sequence coding for a neuraminidase protein (NAy).

Claim 17 (previously presented): A diagnostic method according to claim 15, wherein the antigen is a recombinant antigen comprising an amino acid sequence of an NAy or a fragment thereof.